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Medicine —

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PRESENTED BY

*Dr Howell*

TO THE

BRISTOL INFIRMARY,





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CONSIDERATIONS  
ON THE  
EFFICACY  
OF  
ELECTRICITY,  
IN REMOVING  
FEMALE OBSTRUCTIONS.

To which is now added  
A DESCRIPTION of the Manner of  
applying it.

BY  
JOHN BIRCH, SURGEON.

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THE SECOND EDITION.

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*Nonne improbus labor ignota patefacit, falsò credita dispellit,  
manifestat abscondita, incerta firmat, revelat arcana?*

DE HAEN, Vol. I. Cap. 28. De Machina Electrea.

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## P R E F A C E.

**T**HE wonderful phenomena which Electricity exhibits, have long been the admiration of the most celebrated philosophers; and no assiduity has been wanting to trace their causes in the stupendous scenes of nature: But while the world was lost in the profundity of these speculations, its more immediate benefit to mankind was very imperfectly understood.

Within the last three years, the happy effects of it in the regulation

of the animal œconomy have been made evident to several of the most eminent, and most judicious of the Faculty, whose candor and philanthropy have admitted it as an article for the cure of some diseases\*.

With

\* It is only within the last three years, that the many improvements of the Electric Machine have been invented; which convey this fluid in so many different forms, and have furnished the practice of Electricity with a variety and accuracy of application till then unknown. Before the year 1777, the only methods of applying it to diseases, were the *Shock*—the *Spark*—and *simple Electricity*. The use of *Directors*, to convey the fluid from wooden or metallic points,—the difference of applying this fluid to the naked integuments, or to the skin covered with resisting substances,—the regulation of the shock by the *Medical Electrometer*,—the confinement of its action to a given space,—the improvements of the Cushion and the Zink Amalgama, are all discoveries of the last three years. To these discoveries it is indebted



With respect to the practice of Surgery, during the last Summer, under the patronage of the late Mr. *Else*, I have treated some diseases of the joints so successfully in *St. Thomas's* Hospital, that an account of them was to have been published under his inspection, if death had not deprived me of so valuable a Friend, and the world of so judicious and excellent a Surgeon.

The present medical reputation of Electricity has been acquired by a gradual course of experiments, first upon such cases, as medicine and surgery were insufficient to re-

debted for its present success: And I think I may therefore be allowed to date its effects, in regulating the animal œconomy, from that period.

lieve, and afterwards on many, where the cures remained imperfect; or where the habit wanted its peculiar influence to remove particular symptoms, or to give action to deficient powers.

During my education at the Hospital, I had seen so many remedies fail of their promised success, after a candid trial, and among the rest *Electricity*, that on resuming the practice, I proceeded slowly, and doubted much, cautious of being misguided by false appearances, 'till experience taught me, that when I was unsuccessful, it more often proceeded from want of judgement in the application, than from want of power in the remedy. But by a diligent attention to every new  
circum-

circumstance which occurred, and an impartial examination of facts, I was led by degrees to extend its practice more generally ; and I have the pleasure to find my endeavours have not been misapplied, because the terrors of the knife have been frequently prevented, and some of the common sufferings of humanity much alleviated.

The number of desperate cases arising from obstructed menses, which have been relieved by Electricity since the first publication of this pamphlet, brings a satisfactory reflection to my mind, and induces me to give a more particular description of my manner of applying it, that the practice may become general, and that an objection  
which

which has been illiberally urged against it may be removed; for if any *indelicacy* attended the mode of treatment, that alone would have been an insuperable objection to the recommendation of it, and must have discouraged the use of so efficacious and so beneficial a remedy.

Under the desire however of giving such a general description, as may direct Medical Practitioners, I feel a difficulty which arises from the novelty of the subject; and Mr. Partington's intention of giving the public a View of the present State of Medical Electricity being deferred, increases my embarrassment. —I must therefore confine my description to the mode which was used in the recovery of those patients

tients whose cases are annexed; which indeed is the usual mode I adopt, except where the obstruction depends on remote causes, and where often the delicacy of the constitution; makes the most gentle operations necessary, and sometimes effectual.

I must suppose every Practitioner to have made himself thoroughly acquainted with the Electrical Machine, and its common apparatus; before he commences the cure of diseases with it, because that is as necessary as anatomy is to the practice of surgery, or chymistry to medicine. He is then to add to his apparatus two modern instruments, which from their use are termed *Directors*, and are small metallic  
a rods,



rods, with a ball screwed on the end of them, mounted on handles of glass.—The Leyden Phial, having a medical Electrometer fixed to it, is first to be set to a given charge, which must be regulated by a previous consideration of the age, the strength, and sensibility of the patient. Two pieces of slender wire (which I think much preferable to chain) are to be fixed round the rods of the Directors, and one of them connected with the outside coating of the jar, the other being fastened to the Electrometer. The patient, sitting in a chair, is then to place one of these instruments at the lower part of the spine, nearly upon the Os Sacrum, either by directing it through the pocket, or down the back of the

the stays: she is then to place the other instrument below the peak of her stays; and letting them remain in these situations, the wheel is turned, and the shock passes immediately through that part of the Pelvis which is included between the Directors. This shock being repeated or increased, according as the patient is affected by it, the Director is removed from the Os Pubis and placed under one foot, and afterwards under the other, and a few shocks are thus sent from the sacrum to the feet.

The situation of the Directors is now to be changed to such a position, as to send some lateral shocks across the Pelvis, by placing them through each pocket-hole. Thus

I suppose the nerves and vessels, which are distributed to the uterus, must be affected by the passage of the electric fluid.

This is the outline of the method I have used in the generality of cases which have been submitted to my care; and where the disease has arisen only from an obstruction of those vessels, this method has always proved successful.

When the obstruction is caused by a general debility, yet is attended with symptoms which require relief, the application of *shocks* are often very improper.—The Electric powers must in such a case be moderated according to the symptoms: but as it would require a dissertation

tion on the subject, to describe the various modes in which this fluid is applicable to the human frame, I decline entering upon it here; since the intention of this publication is only to refute an opinion, which prevails with some, that the Experiments with Electricity are indecisive, and tend to no particular point. Cases of extreme debility, attended with periodical pains about the region of the Uterus, aggravating other symptoms, are the only ones in which I have failed of success, but they are so few, that though I am bound to acknowledge them, they do not induce me to alter my opinion, that Electricity is as certain a specifick for the removal of Menstrual Obstructions, as the Bark  
for

for the cure of Intermittents, or Mercury for the Lues Venerea.

I cannot conclude this Preface without recommending the trial of this remedy in those diseases of the Ovarium, which commence towards the latter periods of menstruation; not that I have had experience enough to lead me beyond conjecture; but as these diseases are so often fatal, a rational mode of relief may with great propriety be attempted, particularly as in judicious hands no harm can accrue from it.

Thus having discharged my duty, in submitting to the *Faculty*, the method I used in the treatment of  
the



the following Cases, I hope no imputation of harbouring a secret can be attributed to me ; for that is a crime which in professional knowledge I have been taught to despise.—To the experience and to the judgement of Medical Practitioners I must leave any deviations they may think proper in particular Cases, reminding them that the assistance of medicine is not to be discarded.



## CONSIDERATIONS, &amp;c.

**A**MONG the variety of diseases, with which human nature is afflicted; men have but few, which arise from a peculiarity of the structure, intention, and conformation of parts; but the female sex have several, which sometimes are dangerous, and often difficult to cure: among these, the diseases of the Uterus form the greatest part; and that of which I propose to treat being frequently the first, has so great an influence over the future habit, that it may be accounted the æra from whence they date a life of sickness or enjoyment.

As the intention of nature in the formation of the female sex, was, among other things, for the nutrition of the child while in utero, and for its support during the first months of its infancy, so women are supplied with a superfluous quantity of blood from the time they are capable of conception, to answer these purposes; and they are defended against any inconvenience they might suffer from the stimulus which this accumulation, after a certain period, might produce, by her making an occasional effort for its discharge in a part where it meets with the least resistance, the structure and the situation of the womb being well adapted to afford it a commodious passage.

This discharge is denominated the Menstrual Flux, because the period of its flowing is naturally once every lunar month; and the female constitution so  
much

much depends upon the regularity of this flux, that the obstruction of it is ever attended with immediate or consequent ill-health: a method therefore of relieving it with *certainty* will, I trust, be thought an advantage to physic, because it seems hitherto to have been ineffectually sought after by the learned and ingenious.

The medicines which have been recommended, and are used, to remove these obstructions, are not always found adequate to the purpose; and some constitutions are not able to bear their operation; a mode therefore of relieving so common, and yet so dangerous, a complaint, which can be practised without detriment to the health, applied to the seat of the disorder alone, and may be regulated according to the age, the strength, and the constitution of the patient,



tient, will appear the most rational, as well as most probable mode of cure.

That the power of the electric shock is adequate to this purpose, we want not the authority of many authors of the first reputation to prove.

Van Swieten, upon the diseases proper to virgins, says, “ When the power of  
“ electricity began to be employed in the  
“ cure of diseases, the menstrual flux was,  
“ from that wonderful power, observed  
“ to be considerably increased, and to  
“ flow in greater abundance than at any  
“ time before ; nay, both before the pe-  
“ riods, and after they were gone off, a  
“ woman has been known to get a Fluor  
“ Albus \*, which she never on any for-  
“ mer

\* A modern author, treating of the diseases proper to women, observes, that the Fluor Albus is a frequent

“mer occasion had experienced in her  
 “life. But the electric shock, like  
 “thunder, penetrates every thing instan-  
 “taneously; hence the vessels are open-  
 “ed, and the motion of the fluids is in  
 “a moment quickly increased.”

Dr. Cullen gives his sentiments on the  
 subject still more strong, when he says,  
 “The various medicines recommended  
 “as stimulants to the uterine vessels un-  
 “der the title of Emmenagogues, have  
 “never appeared to me to be effectual;  
 “and I cannot perceive that any of them  
 “are possessed of a *specific* power in this  
 “respect.—One of the most powerful

frequent complaint when the menses are either de-  
 fective or immoderate; and I shall shew in the Ob-  
 servations on the Cases annexed, that the electric  
 shock has sometimes produced this effect previous to  
 the appearance of the menses, but that it ceased on  
 their approach, and never appeared afterwards.

“ means

“ means of exciting the action of the  
 “ vessels in *every part of the system*, is  
 “ the ELECTRIC SHOCK; and it has  
 “ been employed with success for excit-  
 “ ing the vessels of the uterus.”

Dr. Musgrave, treating of the Pulmo-  
 nary Consumption, in his third Gullsto-  
 nian Lecture, read before the College of  
 Physicians this year, observes, with re-  
 spect to those consumptions which take  
 their origin from obstructed menses, that  
 “ The power of the electric shock in  
 “ removing either the obstructions them-  
 “ selves, or at least their concomitant  
 “ disorders when recent, is so great, I  
 “ could almost say so miraculous, that I  
 “ do not except even these from the pos-  
 “ sibility of a cure.”

I may be allowed, therefore, to infer,  
 that the good effects of Electricity in  
 remov-

removing these obstructions have been practically evident to these authors ; but the Baron Van Swieten's remark was made at a time when the study of Electricity was in its infancy, and its application was accompanied with such sharp pain, as made its operation too much dreaded to be admitted into general practice : the cures which were at that time performed by it, were generally effected by the first shock, which if it failed, was too severely felt by the patient, to encourage him to apply a second time ; and this I presume is the reason why these gentlemen have not had the opportunity of observing its effects to be so constant, as it has been under the method in which I have conducted it ; which is totally the reverse of any former mode, being gentle, yet effectual ; applied to the seat of the disorder, and not to the whole frame.

I hope

I hope I shall not be thought to deviate from the province of Surgery, by treating of a disease which has hitherto fallen under the care of the Physician, when it is observed that the mode I propose for its cure, is an operation performed by the hand, with the assistance of instruments, and therefore falls under the care of Surgery \*. I might add, that anatomical skill is necessary to direct it with propriety and success.

The many surgical complaints which take their origin from this obstruction, and the number which are aggravated by it, led me first to the trial of attempting their relief by this powerful force. The

\* Est vero chirurgica, ea pars medicinæ, quæ manu curat: est medicinæ pars, quæ docet, quomodo manuum imprimis, atque instrumentorum, imo et medicamentorum externorum adjumento morbi vel curandi sint vel avertendi.

Celsus, *lib. i. Præfat. p. 3.* Item, *lib. vii. in principio Præfationis.*



success I met with induced me to consider the subject more attentively, and from the experiments I made in consequence of that attention, the present thoughts on the disease arose.

THE interruption of the menstrual flux, is to be considered as arising from two different causes : The one I shall name, after a celebrated author, the *Retention* ; and the other, the *Suppression* of the menses.

The first is, when they do not begin to flow at the period of life, in which they may be expected ; and the last, when after they have taken place for some time, they cease, from other causes than conception, to return at their usual and proper periods.

The retention of the menses is not to be considered as a disease, merely from their not flowing at the period which is customary with other young girls, because the period is so various in different young women that no precise time can be assigned as proper to the sex in general. Different climates make great variety in this particular; in England they generally appear about the thirteenth or fourteenth year; but in many more early, and in some not till the sixteenth year, and then frequently without any disorder occasioned thereby.—It has been remarked by physicians, that when this discharge appears at a proper age, and without any particular inconveniences, a sudden increase of stature has been observed, so that in a few months the body has grown taller than it had done for a year or two before. The retention therefore, is not  
to

to be considered as a disease, unless when about the time the menses should be expected to appear, some disorders arise which may be imputed to that retention, being such as we know from experience, when happening at that period, are removed by the flowing of the menses.

The signs which denote the first appearance of the menstrual discharge, are—the swelling of the breast, a heaviness and laziness, a pain in the back or about the kidneys; a yawning and stretching of the body; a flushing in the cheeks, which comes and goes; sometimes they have a loathing, with a desire to reach. In some the muscles and tendons of the neck become tense and rigid, and others complain of a head-ach,

These symptoms disappear upon the flowing of the menstrual discharge, which

continues a longer or a shorter time in different women ; with some it is over in three or four days, but with others it lasts near a whole week. It is reckoned better when it drills away by degrees, and flows on without interruption until it ceases entirely. Not unfrequently it happens that the menstrea will flow two or three days, then stop, and presently after return again ; such women however are liable, during the interruption, to have all the symptoms return which usually precede the flowing of their menses, particularly a head-ach, and a troublesome stiffness in the neck, which lasts till the blood begins to flow again from the uterus\*.

The disorders which denote a *Retention* of the menses, are a sluggishness and frequent sense of lassitude and debility,

\* Vide Galen, lib. 6. chap. 3.

with various symptoms of indigestion, and sometimes a desire to eat of unnatural things. At the same time the face looses its vivid colour, becomes pale, and frequently of a yellowish complexion; the whole body grows pale and flaccid; the feet, and perhaps a great part of the body are affected with œdematous swellings: The breathing is hurried by any quick or laborious motion of the body, and the heart is liable to palpitation and to syncope: a head-ach sometimes occurs, but more certainly pains of the back, loins, and haunches.

These symptoms, when in a high degree, constitute the Chlorosis or Green-sickness, which hardly ever appears separate from the retention of the menses. A considerable laxity and flaccidity of the whole system is manifestly apparent from these symptoms, and lead us therefore to judge that the retention of the



menfes accompanying them is owing to a weak action of the veffels of the uterus, infufficient to overcome the rigidity of the extremities of the uterine arteries, which therefore do not impel the blood to their extremities with a force fufficient to open them and pour out blood by them.

How it happens that at a certain period of life a flaccidity of the fystem arifes in young women, not originally affected with any fuch weaknefs or laxity, and of which but a little time before they gave no indication, is difficult to explain. Some very ingenious conjectures on this fubject, have however of late been published; but it is not proper or neceffary for me to give any opinion about them.

I muft not omit to mention another caufe of retention of the menfes which fometimes occurs; I mean an unnatural

con-

conformation of the parts; nature sometimes varying from her accustomed plan, in the construction of these organs, as well as every other of her works. These instances however do not often exist, but when they occur, they require the assistance of a skilful surgeon to remedy them, and his assistance should not be long deferred; for when the retention of the menses happens from such causes, nature oftentimes opens the most surprising passages and uncommon outlets for her relief\*.

I am next to consider the causes of the suppression of the menses, and then to

\* Boerhaave Aphorism. Sect. MCCLXXXVI. The blood being thus accumulated, frequently opens to itself the most surprising passages, generally considered as very uncommon outlets to the menstrua; for they have been observed by physicians to force their way by the eyes, ears, nostrils, gums, salivary glands, œsophagus, intestines, bladder, breasts, skin, and through particular wounds and ulcers.

treat

treat of the method of relief, which, as it is nearly the same in both cases, I defer till I have spoke of this second affection.

The *Suppression* of the menses occurs only, after the flux has been for some time regularly established, and when the interruption cannot be referred to the causes of Retention, but must be imputed to some resistance in the extreme vessels of the uterus. Thus for instance, cold, fear, and other causes which may produce a constriction of the extreme vessels, often are the causes of Suppression. Some physicians have supposed an obstructing lentor of the fluids to occasion the resistance, but this has been esteemed purely hypothetical, without any proper evidence of the fact, which from other considerations is thought improbable.

There

There are indeed some cases of suppression which seem to depend upon a debility of the system in general, and consequently of the vessels of the uterus. But in such the suppression always appears as symptomatic of the other affections, and therefore must be treated accordingly.

The idiopathic cases of Suppression are attended with various symptoms or disorders in different parts of the body, very commonly arising from the blood, which should have passed by the uterus, being determined more copiously into other parts; and very often with such force as to produce hemorrhages: hence bleeding from the nose, lungs, stomach, *et cætera*, have appeared in consequence of suppressed menses. Beside these, there are commonly hysteric symptoms and affections of the stomach produced

duced by the same cause, and frequently cholic pains, with a bound belly.

In treating of the cure of the Retention, or of the Suppression, I do not mean to discard the assistance of medicine. I propose the ELECTRIC SHOCK to be used only to remove one symptom, but that I believe will be allowed the principal one. I propose it to remove the spasm of the extreme vessels of the uterus, by determining the blood to those vessels, and by accelerating the circulation through them; an effect which has so long been wished for, but which has never been obtained with *certainty* by any other means.

A flaccidity of the system, and a weak action of the vessels of the uterus, may then be considered as most frequent causes of the *Retention* of the menses; and they  
are



are to be cured, by restoring the tone of the system in general, and by exciting the action of the uterine vessels in particular. The tone of the system in general, at the commencement of the disease, is to be restored by exercise, by cold bathing, and by the assistance of chalybeates with other proper medicines.

The action of the uterine vessels is to be excited by determining the blood into them, through the descending aorta, with a particular acceleration. It has been proposed to effect this, by purging and other medicines, by the exercise of walking, by friction, by warm bathing of the lower extremities, and by a compression of the iliac vessels. Whether any or all of these means have answered the desired purpose, I leave to the experience of Physicians. The cases which have been sent to me for relief, where

these remedies have failed, and the sincere confession of authors, have led me to suppose they are not to be relied upon ; I will, therefore, refer the reader to the quotation I have made from Dr. Cullen, to authenticate the probability of the electric shock being the most likely means of exciting the action of the vessels in any part of the system, and then leave him to judge from the Cases I shall annex, whether it has answered this expectation.

To remove the constriction affecting the extreme vessels of the uterus, Dr. Cullen very sensibly lays down as the *chief* indication of cure in cases of suppression ; and for answering this purpose, he says, “ the principal remedy is warm  
 “ bathing applied to the region of the  
 “ uterus. This however, continues he,  
 “ is not always effectual ; and I do not  
 “ know

“ know of any other remedy adapted  
 “ to the indication. Besides this, we  
 “ have perhaps no other means of re-  
 “ moving the constriction in fault, but  
 “ that of increasing the action and force  
 “ of the vessels of the uterus, so as  
 “ thereby to overcome the resistance or  
 “ constriction of their extremities. This  
 “ leads therefore to employ the same  
 “ remedies in the cases of Suppression,  
 “ as those prescribed in cases of Reten-  
 “ tion; the tonics however, and cold  
 “ bathing, seem to be less properly  
 “ adapted to the cases of Suppression,  
 “ and have appeared to me of ambiguous  
 “ effect.”

It frequently happens in cases of Sup-  
 pression, that though the menses do not  
 flow at their usual periods, there are  
 often, at those periods, some marks of an  
 effort to produce the discharge. The  
 fluor albus or whites I have observed to  
 be

be particularly increased at such times, and to have been produced previous to the menstrual discharge by the electric shock. It is at these seasons, when the efforts of the system are concurring, that the remedies for removing the obstruction should be put in use; and I can affirm, that with a proper attention to the particular circumstances of the cases, and by a skilful application of the electric shock, I have *never as yet failed in one instance* to re-establish the natural discharge. Some of the cases which were put under my direction were so peculiar, that I could not amuse my *Patients* even with Hope; but as a late author, in treating of the consumption, has laid it down, as the duty of those who cultivate the study of medicine, never to suffer Hope to be totally extinguished, because the extinction of Hope is the extinction of Endeavour; I undertook to attempt  
their

their relief—and the success evinced the truth of his maxim.

The strength of the electric shock is so different, according to the mechanism of the machine, and of other parts of the apparatus, that, till these matters are brought to a most exact nicety, it will be impossible to give any description of the force with which it should be applied; and even then, indeed, there will be such a variety in the sensations of different people, that the force of it must be regulated by their feelings, and will with difficulty be reduced to rule.—It has hitherto, I am sure, been used much too strong; and those who have had the courage and curiosity to feel it, have given so true and so dreadful a description of the blow, that almost every new patient who applies, expecting the same sensation, is alarmed with the apprehensions  
of



of what she is to suffer. It is some satisfaction to hear their confession afterwards, that the shock was less disagreeable than they could have supposed ; and indeed it is necessary it should be so, because more than one repetition of it is required at the first application.

The relation of a number of Cases, where simple obstructions of a short duration, without any very remarkable attendant symptoms, were removed by the shock, will avail little to establish the superiority of this remedy.—I shall therefore pass over the variety of cases which I have relieved, and confine myself to a few particular ones, where the circumstances were of such a nature as to render the power of medicine ineffectual ; but where the electric shock, exceeding the expectations which were found from it, removed the obstructions in a most  
 4 effectual

effectual manner.—I will, however, add, as a general remark, that when the obstruction has been of short duration, or when it has only been an interruption from cold or accident—the flux has been restored in its accustomed period by a few gentle shocks; and all the symptoms accruing from it have been relieved by the return of the discharge.

E N D C A S E

## C A S E I.

A Young lady, of an exceeding healthy constitution, whose periods had commenced about her fourteenth year, and had established themselves regularly without any inconvenience, took cold, by walking in a windy day at an improper time; the menses were immediately checked; but as no great pain ensued, she did not acquaint any of the family with the accident.—Her mother, however, who was very attentive to her, observing some time after that she was unwell, and enquiring into her complaints, discovered the cause.—She was put under the direction of the family apothecary, who gave her the proper medicines, and did not omit bleeding her; by this attention he alleviated the symptoms, but

was not able to produce a return of the discharge.—Finding her stomach affected by the medicines, she left them off, and went into the country, and to the sea, during the summer. At her return to town in December last, I was desired to see her.—It was then more than ten months since she had been regular.—She was grown thin and pale, was costive, but had not lost her spirits, her appetite, or her rest.—I began with insulating her, and drawing sparks from her stomach and feet; and a few days after, I passed gentle shocks from the hands and the vertebræ of the neck to the feet, increasing them from day to day to the end of the first fortnight; but in that time I could not perceive my treatment made any alteration in her. I concluded from thence, that as the obstruction was probably seated only in the vessels of the uterus, my shock should be passed, if not con-

fined, to the direction of those vessels.—Accordingly I placed my directors in such a manner as to convey the electric matter through every part of the uterus; and having continued this method two days, on the third I had a message to acquaint me of the success that attended it; a mild and easy discharge was produced, and continued, without interruption, its proper time. I have the satisfaction to know, that this young lady has continued perfectly regular ever since, and has grown surprizingly since her health was established.

### R E M A R K S.

It should be observed, that while the shocks were passed universally in this case, that is, from one extremity of the body to the other, they produced no particular effect on the obstruction of an internal part, but seemed to act only, and with-



without any good or bad effect, on the external muscles; but as soon as the powers of electricity were regulated and confined to the vessels of the uterus, the effect was quick and salutary.

C A S E

## C A S E II.

**I**N consequence of the success of electricity in the former case, a young married woman was sent to me who had laboured under an obstruction of the menses for more than four months.—She was of a strong, full, and plethoric habit, was clearly free from any suspicions of pregnancy, at the time complained of violent pains in her stomach and back, and had for several preceding days been troubled with a Diarrhœa.—Her apprehensions of the electric shock were great; and that she might be prejudiced in favour of them, I passed them very gently the first day, but sufficient to relieve, for the present, the pains she complained of.

The

The next day she was more free from pain, but her Diarrhœa was very troublesome.—I then passed stronger shocks, yet moderate ones, through the region of the pelvis; and I desired her to send to her apothecary on her return home, to advise with him for her Diarrhœa.—But ere she reached her home the menses flowed abundantly; and from that moment the laxity of her bowels ceased, her complaints vanished immediately, and she has since been pregnant, and gone the full time.

### R E M A R K.

It is evident from the caution I used in passing the shocks very gently the first day, that the return of the menses is not to be attributed to the sudden fright, or to any affection of the mind which the novelty of the method of cure occasioned.

—On

—On the contrary, it is as evident, that the electric fluid, passing with a due force through the obstructed vessels on the second day, increased the velocity of the circulation sufficient to remove the constriction at the extremities of the uterine vessels.—It is also evident, that the purging, which I had supposed, might be owing to another cause, was only an effort of nature to ease herself of some part of the load; for the moment the menses began to flow, this symptom left her.—This is a symptom remarked to attend on the suppression of the menses by Hippocrates; “*Quibusdam ventris subductiones diuternæ.*”

The nuptial state has been thought by some physicians of great eminence to be so favourable to this disease, that it has been recommended by them: it will, however,

however, appear by this case to have no greater certainty than medicines.

But it will require some knowledge to distinguish cases of pregnancy from the disease in question.—The powers, therefore, of the electric fluid should not be used in the cure of diseases without being joined to a knowledge of the animal œconomy, as much harm may accrue from the improper management of so active a fluid.



## C A S E III.

A Young woman, at the age of twenty-two, desired my advice for a tumor of her thigh, which followed an unhappy accident she met with two years before. Her case was attended with many complicated symptoms, and, among them, a suppression of the menses, which had lasted seven months. I thought it right to relieve, if possible, this symptom before I proceeded to perform the operation which was necessary for the tumor.

For three successive days I passed some electric shocks through the region of the pelvis; and on the fourth, she was attacked with a violent pain in her side, which left her on applying the shocks to that part.—In about three hours it  
I
returned

returned, and I was sent for. I repeated the shocks, and the pain again vanished.—I visited her six hours after, when the pain had begun to attack the side.—I passed a stronger shock, which removed it, and she slept well the whole night.—The next day, being the fifth, the menses appeared, and flowed gently for three days ; but ceasing then, the pain of the side returned, and was so violent, that I was sent for in a hurry.—When I came to her I found her in great agony ; but being informed of the cause, I begged to make trial of electricity once more, which she readily consented to, as she had experienced such instantaneous relief before.—On its application, the pain ceased.—A very short time after, the flux came on, and continued two days.—I attended her for several weeks after upon the former ac-

count, and had the pleasure to see her recover from all her complaints.

### R E M A R K.

It will appear from this case how attentive the practitioner of Electricity should be to the symptoms his application may give rise to. A novice in the art would have been perhaps alarmed at the return, and at the metastasis, or removal of the symptoms; but experience had taught me to expect peculiar symptoms from the revolution, which the electric shock must produce in the system. The resistance of the vessels of the uterus might be too great to give way to the first efforts, and a weaker part might therefore suffer inconvenience; but I knew, from repeated trials, those pains would leave her on the application

plication of the shock, directed towards the obstructed vessels, and that the desired event would, by steady perseverance, be produced.

C A S E

## C A S E IV.

**F**EBRUARY 10th, 1779, a young woman, about 22 years of age, came to me to be electrified for a pain in her side, which she had been troubled with for some months, without being able to get relief.

She related to me, among other things, a very particular circumstance.—From the time that she first began to menstruate, she said, that *they* flowed regularly in their natural channel for two successive months, but on the third month they had as regularly been vomited up from the stomach, which at those times was affected with pain and sickness.

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When she related this to me she was within a week of the period when they should have been discharged from the stomach.—I was desirous, therefore, to try if the Electric Shock would have power to alter the course; and with this view, I passed some shocks from the stomach to the feet, and to the os pubis, continuing them every day.

13th Feb. She informed me the menses had appeared at their natural outlet; but they stopped the next day, and a pain seized the side and the back.—These pains were removed by gentle shocks, and the menses flowed again.—The four succeeding days they remitted, and flowed again after being electrified.—On the

18th, She omitted to come to me; and the next day, the

19th,

19th, A small quantity was discharged from the stomach, which was very sick the whole day.—I then increased the strength of the shocks, passing them through the stomach to the os pubis and to the feet.—The menses flowed from this time in a larger quantity than before, without intermission, for three days, when they ceased, and the pain in her side, for which she first applied to me, was quite removed, and did not again return.

Near four months afterwards she called on me, as I had desired her, and acquainted me that she had enjoyed her health perfectly since I saw her; that the last time she was out of order, which was the period when the discharge was expected from the stomach, she was taken in the natural way, and went her proper time;

time, without any interruption to that course.

### R E M A R K.

This case appears to me to evince the powers of Electricity very remarkably. It is curious to see how wonderfully nature exerts herself to remedy those *Lusus Naturæ*; which, in the multiplicity of her works, she sometimes forms.—We ought to be more surprized at her exactness than at her few deviations; when we recollect the variety of creations she is perpetually employed in; and the pains it costs her to remedy these little inaccuracies, are frequent subjects of admiration to those who are curious in investigating her works.

How to account for the peculiarity of the present case I am at a loss; but as I

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had observed in all the cases of obstructed menses, that the powers of the animal œconomy were ever ready to assist any effort to the natural mode of discharge; so I was led to suppose, that even in this remarkable instance I might be able to turn the course from its unnatural channel.—The event proved favourable to my opinion, and, I think, is a very striking proof of the powers of Electricity over the animal œconomy.

I should observe there were several disadvantages attended the operation of the Electric Machine in this case.—The woman had a long walk to come and go every day—the weather was cool and rainy; and to these circumstances I attribute the daily checks her discharge met with.—Had she been in a situation to have had every comfort at home, and ~~that~~ I could, with convenience, have visited

sited her morning and evening, she would probably have had none of those intermissions, and the cure would have been more easily effected; but the difficulties which attended it serve only to add to the reputation of the means which produced the end.

## C A S E V.

SARAH BURMAN was a patient in St. Thomas's Hospital, under the care of Dr. Reynolds. She had suffered an

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obstruction of her menses for more than nine months.—Her legs were swelled to a prodigious size; she was unable to take any exercise on that account, and had many other pains and complaints in consequence of her disease.—Dr. Reynolds, at her first admission, ordered her to be electrified; and this was done for a few days, with strong shocks after the *old method*. The patient however finding no relief, it was desisted from, and he directed medicines for her.—After three months the obstruction still remained. I was at this time attending some patients of Mr. Elfe's in the hospital, so the Doctor paid me the compliment of submitting her to my care.

She was 27 years old, of a strong, plethoric, and naturally healthful constitution;

tion ; had had one child. She had never been subject to a large flux, because she worked hard in the country. She was of a very costive habit of body.

On the 11th of April, 1779, I first began to electrify her with moderate shocks through the pelvis to the feet. She felt some throbbing pains about the lower part of her belly and her thighs for three hours after ; and at night she was much troubled with the head-ach.

12th—13th—and 14th. I repeated the shocks in the same manner : the pains left her head, and removed to the stomach and region of the pelvis, but were always relieved for several hours after being electrified.

15th. I electrified her as before ; and that night a small shew of the menstrual flux was observed for three hours.

16th, I continued to pass the shocks in the same direction; the discharge appeared within twenty minutes afterwards in a good quantity, flowed for an hour, and then ceased. Her pains left her when the menses returned.

17th. Repeating the same, *they* appeared in a few minutes, continued more than two hours, and then stopped.

18th—19th. No discharge followed the shocks. On consulting the Doctor, it was thought adviseable she should continue her medicines to keep her body lax, and omit the electric shocks till the next period approached.

She left the hospital a few days after, and went to a family in Suffolk-street, where she was chiefly employed at needle-work. On the 5th of May I called on  
her;

her ; I found her legs very much swelled, and exceedingly painful.—She was very costive, having neglected her medicines for some days ; her head-ach was violent ; she made but little urine, and her body swelled. I began electrifying her again, and directed her to take a purging draught immediately.—She was somewhat easier the next day, from the relief the draught had given her. On the

7th, She complained of the swelling of her body, and of the small quantity of urine she made.—As I had observed the Electric Shock to increase the action of any part through which it was sent, I thought it might produce some good effect by stimulating the kidneys, and therefore directed it through them.—My conjecture was right ; she made a large quantity of urine that day and the two follow-

following, and the swelling of the belly diminished in consequence.

10th May, She was not electrified: in the evening she grew very uneasy and full of pain, was listless and dejected.—These symptoms all disappeared on the 11th after being electrified.—She continued mending till the 14th, when she complained much of a pain in her head.—I passed some shocks through it, which instantly relieved it.—In the evening she found herself much better than ever she did before. The next morning, being

15th, Some appearance shewed itself: when I called on her, she was in bed, complaining of a most violent head-ach. I ordered her to rise and come down stairs, which she was unwilling to do, being very low spirited.—I electrified her briskly, and her spirits increased after every shock.

—I left



—I left her quite easy.—During the rest of the day the discharge was unusually great, but she was perfectly free from pain; and at night the swelling of her legs was exceedingly diminished.

16th—17th. The shocks were repeated, and the discharge continued without any check; after the third day, which was her usual period, it ceased.

During these three days—she evacuated a much larger quantity than she had ever done; but found herself after it rather weakened, and her legs began again to swell. By the advice of my friend, Dr. Mekell, who had attended to her case while in the hospital, and was anxious to learn the event, she was then put upon a course of bark and steel medicines, continuing electricity gently. In three weeks she was taken out of order; after which

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she left off all medicines, &c. and has since had a perfect state of health.

### R E M A R K.

This case carries with it so strong a conviction of the service of Electricity, that it will render a repetition of others less striking quite needless, which I shall therefore omit.

It should be observed, that this patient had laboured under these obstructions till nature was almost unable to bear the weight any longer, and would have evacuated the load at some unusual place, if the care which had been taken of her had not prevented that.

Notwithstanding the attention and advice of an eminent physician, the removal

val of the obstruction could not be effected by medicine.—At the time she was put under my care she was too bad for me to suppose I should be able to relieve her; it was not expected; and when in five days I gave the account of my success, it was received with surprize.

The removal of the immediate obstruction was not perfecting the cure of this young woman.—She had been troubled with the Fluor Albus, which diminished after the appearance of the menses, but did not leave her.—During the time she omitted the use of Electricity she grew much worse.—When she pursued it again she began to mend, and her incipient dropsy left her.—After the second discharge, most of her original complaints disappeared; but others took their place, and particularly her Fluor Albus was considerable.—The use of tonic me-

dicines were then plainly indicated ; their effect was extremely salutary ; the application of Electricity was removed from the pelvis, and confined only to the legs.

—The event of their united operation established the constitution on as firm a basis as nature had provided for it.

## C A S E VI.

CATHERINE HOPKINS, aged 18, was admitted into St. Thomas's Hospital 28 February, 1779, for an enlarged and ulcerated lip, which had been supposed to be cancerous, partly from the appearance of the part, and from the account she gave of her mother, who, she said, died of a cancer in Dublin in her 44th year.—Her mother had never been regular till after she was married, which happened in her 18th year.

Conversing one day with my friend, Mr. Else, on the powers of Electricity, and particularly of the *certainty* with which I had been able to produce the menstrual flux, he shewed me this girl, made me acquainted with her case, and  
told



told me the Labia Pudendi shewed a suspicious appearance, being enlarged and ulcerated like her lip. He added, that he thought if she became regular, these symptoms might mend.—As the medicines she had taken for this purpose had not produced any effect, he proposed to Dr. Rawlinson that she should be put under my direction, which he politely admitted of.

4th July, I began to electrify her gently, directing the shocks through the pelvis, and continued them in the same manner till the 9th, when she began to complain of slight pains in her head, back, and belly—sometimes in her thighs. Her spirits were much mended; she found herself stronger; and her lip was growing better, though the thickness was not lessened.

10th July, I passed shocks wherever she complained of pain, which relieved her ; and for experiment, I passed a few gentle shocks through her lip, and flung the electric fluid on the ulcers within it : this method was repeated every day ; and on the

17th, Her lip was reduced to its natural size ; some of the ulcers were healed ; but the lymphatics in the neck were a little swelled : I directed some shocks through them, and they quickly subsided.

The appearance of her countenance was so much mended for the better, by the swelling of the lip subsiding, that I was inclined to believe I had produced the alteration by my treatment of the part, particularly as its amendment had been so expeditious, and previous to the appearance of the menses—but Mr. Else  
thought

thought otherwise, and I have reason to respect his opinion.

The *Retention* of the menses, for which she was put under my care, was not removed.—I continued to electrify her daily, and could produce a discharge of a whitish colour from the uterus, after a shock of a certain strength: this led me to imagine, the assistance of tonic medicines would produce the proper discharge; and on the 23d of July I had mentioned this opinion to the Doctor; when the nurse of the ward informed us our patient had been taken out of order the preceding evening, about an hour after I had electrified her.

*They* continued to flow rather profusely for six days, and then ceased.—The labia pudendi, on examination, had three or four large ulcers remaining, but  
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the swelling was diminished. As she had used no application to them for some time, and had walked about, it may be supposed they were heated and chafed; she was therefore ordered to remain quiet, and to wash them with the Vegeto-mineral water of Goulard: in about ten days they were healed; and on the 10th of August she was taken out of order for the second time: *they* continued to flow rather profuse, and to weaken her.—The Doctor ordered her proper medicines, which relieved her; and on the

19th August, She was discharged from the hospital perfectly well.

### R E M A R K.

This single case of the *Retention* of the *Menses* will serve to shew what peculiar disorders may arise from that cause,

and how difficult it is to relieve their symptoms without removing the obstruction from which they originate.—I have had the happiness to restore health to some other young persons labouring under the Retention of the Menfes; and one Lady was every four weeks attacked with an ulcer on her lip, which healed again in about five days; but after her obstructions were removed, this symptom vanished.—Another was hastening to a consumptive state, and happily relieved from it by the removal of the cause.—But as I do not mean to trouble the reader with a repetition of cases, I shall beg his patience for only one more, which is not uncommon in Surgery.



## C A S E VII.

**I** Was sent for to a Lady, who had been afflicted with painful ulcers on both her legs for more than fifteen months.— They came after a lying-in, and had never healed. The legs were swelled, but the ulcers had no malignant appearance.— She told me, that since her last miscarriage, which was then more than ten months, she had never been regular.— She attributed the pain and swelling of her legs to that cause; and upon enquiry, I found that she was sensible of an endeavour of nature to relieve herself at regular periods, and that the pain she suffered at those times was alleviated by a bloody discharge from the ulcers.—I applied the proper dressings and bandages to the parts, and waited the approach of that period.

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In about ten days, a pain seized her back, and she began to complain of her legs : I then electrified her ; and the next day she was taken out of order, and continued so the whole week. The ulcers mended from that time, and were healed in three weeks afterwards.

THE END.









